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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/613,171	07/03/2003	Peter Renner	28201-24	9145

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Charles L. Schwab  
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EXAMINER
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BARNES, CRYSTAL J

ART UNIT	PAPER NUMBER
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2121

DATE MAILED: 03/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/613,171	<b>Applicant(s)</b> RENNER, PETER	
	<b>Examiner</b> Crystal J. Barnes	<b>Art Unit</b> 2121	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 July 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-8, 17 and 18 is/are rejected.
- 7) ☒ Claim(s) 4 and 9-16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>14 October 2003</u> . | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. The following is an initial Office Action upon examination of the above-identified application on the merits. Claims 1-18 are pending in this application.

#### *Priority*

2. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Europe on 5 August 2002. It is noted, however, that applicant has not filed a certified copy of the 02017453.8 application as required by 35 U.S.C. 119(b).

#### *Information Disclosure Statement*

3. The examiner has considered the information disclosure statement (IDS) submitted on 14 October 2003.

#### *Specification*

4. The disclosure is objected to because of the following informalities:  
"symbolic figures" on page 14 [0055] and page 15 [0056] should be changed to "graphical symbols"; "symbolic figure" and "figures" on page 15 [0055] should be

changed to "graphical symbol" and "symbols", respectively. Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-3 and 5-8 are rejected under 35 U.S.C. 102(b) as being anticipated by USPN 5,517,404 to Biber et al.

As per claim 1, the Biber et al. reference discloses a system for automation, monitoring and measurement acquisition for a technical process having measurement and control units (2, 14, 15, 16) (see column 14 lines 46-48, "drivers 395, 396") that are connected to sensors (see column 14 lines 59-62, "allocated sensor units") and actuators (see column 14 lines 56-59, "drives") of the processes (1, 8, 9, 10) (see column 11 lines 5-12, "spinning mill") via measurement and control lines (3, 11, 12, 13) ("interfaces"), comprising: a data network (4) (see columns 12-13

lines 66-4, "network 350"), and system automation modules (44, 45, 46) (see column 11 lines 5-12, "machines 122, 124, 126, 128 132, 136, 142") in said data network (4) ("network 350") combined into automation units (39, 31, 32, 18, 19) (see columns 12 lines 33-35, "processing stages 300, 320, 330"), each automation module ("machines 122, 124, 126, 128 132, 136, 142") having its own program code ("control unit") and being executable independently ("control unit") of the other automation modules ("processing stages 300, 320, 330").

As per claim 2, the Biber et al. reference discloses said data network (4) ("network 350") includes an automation group (99) (see column 12 lines 7-12, "areas B1, B2, B3") having system automation units (18, 19, 20) ("processing stages 300, 320, 330") each of which has its own program code ("control unit") and is executable independently ("control unit") of other of said automation units (18, 19, 20) ("processing stages 300, 320, 330").

As per claim 3, the Biber et al. reference discloses said data network ("network 350") includes an information level (22) (see column 14 lines 1-4, "process control computer 340") at a higher level than said automation units (18, 19, 20) ("processing stages 300, 320, 330"), said information level (22) ("process control computer 340") containing information programs (23, 24, 25, 26, 27) (see column

14 lines 46-48, "allocated memory 343, 345") having reading access (see column 13 lines 61-67, "direct access") to said automation units (18, 19, 20) ("processing stages 300, 320, 330") and to said automation modules (44, 45, 46) ("machines 122, 124, 126, 128 132, 136, 142").

As per claim 5, the Biber et al. reference discloses said individual automation units (18, 19, 20) ("processing stages 300, 320, 330") are combined into an automation group ("areas B1, B2, B3") and each ("processing stages 300, 320, 330") has its own program code ("control unit") encapsulated from the other automation units ("processing stages 300, 320, 330") and are executable independently ("control unit") of one another ("processing stages 300, 320, 330").

As per claim 6, the Biber et al. reference discloses said automation units (31, 32) ("processing stages 300, 320, 330") are structured in a supervisory plane (33, 36) (see column 14 lines 1-4, "process control computer 340"), a plane of automation modules (34, 37) ("machines 122, 124, 126, 128 132, 136, 142") and a report plane (35, 38) ("process control computer 340").

As per claim 7, the Biber et al. reference discloses said supervisory plane (33, 36) ("process control computer 340") is designed for the setting up (see column 28 lines 10-13, "settings") of automation units (18, 19, 20, 31, 32)

("processing stages 300, 320, 330") and automation modules (44, 45, 46)  
("machines 122, 124, 126, 128 132, 136, 142") and for the starting and stopping (see column 26 lines 12-17, "in operation/stopped") of the automation modules  
("machines 122, 124, 126, 128 132, 136, 142") and also displays (see column 14 lines 49-52, "user interfaces") items of information about the status (see column 27 lines 7-10, "operating condition") of the individual automation modules (34, 37) ("machines 122, 124, 126, 128 132, 136, 142").

As per claim 8, the Biber et al. reference discloses said plane of automation modules (34, 37) ("machines 122, 124, 126, 128 132, 136, 142"), facilitate development (see column 28 lines 26-29, "issue an instruction") of additional automation modules (44, 45, 46) ("machines 122, 124, 126, 128 132, 136, 142"), which are executable independently ("control unit") of one another and each have their own program code ("control unit").

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been

Art Unit: 2121

obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,517,404 to Biber et al. in view of US Pub. No. 2002/0131454 A1 to Franke et al.

The Biber et al. reference does not expressly disclose a time stamp is appended to analog process variables acquired by said measurement and control unit via sensors.

The Franke et al. reference discloses

(see pages 4-5 [0024], "The possibility for the decentralized input/output module 2 to treat and/or process the data in any manner, especially to add a time stamp to the data without changing the data format itself and/or converting it into another format (if necessary for the proper functioning of the automation system) is unaffected.")

(see page 8 [0035], "... the decentralized input/output modules 2, for example, can additionally generate a time stamp from a corresponding count or the corresponding communication cycle ... This time stamp is added to the data, together with the type of input event, for example positive or negative switching edge etc., as stamp 42 at the automation component level 62, for example by the



decentralized input/output module 2 during signal detection 41 of the input event 40 or signal conversion 43 so that the detection time and type of switching event of these data is precisely logged in the decentralized input/output module 2 and is a component of the data during the forwarding.")

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the raw data of sensor units directly accessed by the process control computer taught by the Biber et al. reference to include the time stamps taught by the Franke et al. reference.

One of ordinary skill in the art would have been motivated to modify the raw data of sensor units directly accessed by the process control computer to include the time stamps to precisely log quality and condition signals without affecting data contents.

As per claim 18, the Franke et al. reference discloses said time stamp (see page 8 [0035], "time stamp 42") is appended ("added") to the edges ("edge") of digital signals ("positive or negative switching").

*Allowable Subject Matter*

9. Claims 4 and 9-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. The following is a statement of reasons for the indication of allowable subject matter:

As per claim 4, the prior art of record taken alone or in combination fails to teach said information programs (23, 24, 25, 26, 27) of said information level (22) are configurable to lack access to predetermined automation groups.

As per claim 9, the prior art of record taken alone or in combination fails to teach a number of reports (47, 48, 49) can be developed, which are executable independently of one another, each report having available its own program code.

*Conclusion*

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following references are cited to further show the state of the art with respect to automated process control in general:

USPN 6,957,110 B2 to Wewalaarachchi et al.

USPN 6,891,838 B1 to Petite et al.

USPN 6,772,033 B2 to Scherer et al.

USPN 6,754,721 B2 to Heckel

USPN 6,615,091 B1 to Birchenough et al.

USPN 6,325,198 B1 to Pattantyus-Abraham et al.

USPN 5,455,911 to Johansson

US Pub. No. 2005/0154809 A1 to Becker et al.

US Pub. No. 2003/0033036 A1 to Wendroff

EP Pub. No. 0825502 A1 to WEISSINGER

EP Pub. No. 0068482 A1 to EDINGER et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Crystal J. Barnes whose telephone number is 571.272.3679. The examiner can normally be reached on Monday-Friday alternate Mondays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Knight can be reached on 571.272.3687. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



CJB

4 March 2006